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MODULE VI

INCINERATION

PRD
RCRA PERMIT 090613357

Boys date
5/18/07

SMITHKLINE BEECHAM PHARMACEUTICALS CO.
GUAYAMA, P.R.

MODULE VI - INCINERATIONA. UNIT IDENTIFICATION

UNIT DESCRIPTION: SK&F operates three hazardous waste incinerators which are identical in construction and incinerates the same wastes under the same operating conditions. The incinerators are Sub-X Liquid Waste Oxidizers manufactured by the Trane Thermal Company of Conshohocken, PA. Only two of the three hazardous waste incinerators are operated at any time.

The incinerator units are down-fired liquid waste incinerators each equipped with a quench tank, high energy venturi scrubber, separator (including a mist eliminator), and an attached stack. The combustion chamber of each incinerator is a vertical cylinder of 3 ft. 9.75 in. diameter and 22 ft. 8.4 in. height. The cross sectional area of the combustion zone is 11.42 sq. ft. and the volume below the aqueous injection nozzles is 248.9 cu. ft. The air entering the incinerator is supplied by a single forced draft fan. The incinerator system is also equipped with an automatic waste/incinerator shut-down system to prevent excessive emissions or damage to the incinerators due to abnormal operating conditions.

The location and design details of the incineration system are included in Attachment I to this Permit.

CONSTRUCTION AND MAINTENANCE: The Permittee shall maintain the facility in accordance with the attached design plans and specifications in Attachment I to this Permit.

No modification to the incinerator and its flue gas cleaning system shall be made which would affect the achievement of the performance standards in Condition VI.B., or any other permit conditions specified in this permit, without first obtaining written approval from the Regional Administrator.

B. PERFORMANCE STANDARD

The Permittee shall construct and maintain the incinerator so that, when operated in accordance with the operating requirements specified in this permit, it will meet the following performance standards.

1. The incinerator must achieve a destruction removal efficiency (DRE) of 99.99% for each principal organic

hazardous constituent (POHC) designated in this permit for each waste feed. DRE shall be determined using the method specified in 40 C.F.R. § 264.343(a).

2. The incinerator must not emit particulate matter in excess of 180 milligrams per dry standard cubic meter when corrected for 7% oxygen in the stack gas, in accordance with the formula specified in 40 C.F.R. § 264.343(c).
3. The Permittee must control hydrogen chloride (HCl) emission from the incinerator stack such that the rate of emission of HCl does not exceed 4 lb/hour. This HCl emission limit shall be met by limiting the total feed rate of chloride to the incinerator as provided in Condition VI.C.6.
4. The Permittee must control emission of products of incomplete combustion (PICs) from the incinerator such that the carbon monoxide (CO) level in the stack gas, shall not exceed the limits specified in Condition VI.D.3.
5. Compliance with the operating conditions specified in this permit will be regarded as compliance with the above performance standards. However, evidence that compliance with such permit conditions is insufficient to ensure compliance with the above performance standards, such evidence may be "information" justifying modification, revocation, or reissuance of the permit pursuant to 40 C.F.R. § 270.41.

C. LIMITATION ON WASTES

1. Permittee shall incinerate only hazardous wastes generated on-site at the SK&F Guayama facility or subsidiaries of SK&F in Puerto Rico. No other off-site generated hazardous waste shall be permitted to be combusted in the incinerator.
2. The Permittee shall not incinerate any hazardous waste that contains any hazardous constituent listed in 40 C.F.R. Part 261 Appendix VIII, having a heat of combustion of less than 0.24 kcal/gm.
- ③. The Permittee shall not incinerate any organic waste stream having a heating value of less than 8,482 Btu/lb.
433 Btu/lb

4. The Permittee shall not incinerate any hazardous waste containing polychlorinated biphenyls (PCBs) or dioxins.
5.
 - a. The Permittee shall not incinerate any waste or combination of wastes and fuel, as fed into the incinerator, which have a combined heating value of less than 2,400 BTU/lb.
 - b. The Permittee shall not incinerate any waste or combination of wastes/fuel such that the heat input is greater than 11 MMBTU/hr (the design thermal capacity of the unit).
6. The Permittee shall not feed any waste or combination of wastes containing organic chlorides into the incinerator that will result in an organic chloride feed rate greater than 60 lb/hr.
7. The Permittee shall not incinerate any combined liquid waste feed with an ash content that will result in an ash input greater than 334 lb/hr.
8. The Permittee shall not divert process gases to the liquid waste incinerator when hazardous wastes are incinerated.
9. The Permittee shall not burn any aqueous or liquid organic waste with a viscosity greater than 400 cp (centipoise).
10. The Permittee shall conduct regular waste analysis of the waste streams, in accordance to Attachment A and Condition C.2 of Module II, to document compliance with Condition VI.C.

D. OPERATING CONDITIONS

Permittee shall feed the wastes described in Condition VI.C. to the incinerator only under the following conditions:

1. Combustion chamber temperature, as measured at TE905 and recorded at TR905, shall be maintained at 914 °C or greater at all times while any hazardous waste or its residual solids remain in the combustion chamber.
2. The maximum flowrate of combustion air to the incinerator, as measured at FT907, FT906, FT975D, and FT975 and recorded at FR975 shall be 2000 acfm. The indicator of combustion gas velocity shall be the combustion air flowrate.

3. The stack gas concentration of carbon monoxide (CO), as measured at AR-900B and recorded at AR-900B, and corrected to 7% oxygen, dry volume in the stack, shall not exceed 100 ppmv on a 60-minute rolling average, 500 ppmv on a 10-minute rolling average.
4.
 - a. The maximum feed rate of organic waste, as measured at FT-908 and recorded at FR-908, shall be 6.5 L/min.
 - b. The maximum feed rate of aqueous waste, as measured at FT-923 and recorded at FR-923, shall be 22.0 L/min.
5. The waste stream burner turn-down ratio shall not exceed the burner manufacturer's specification.
6.
 - a. The atomization pressure of the aqueous waste stream shall be maintained at or above 17 psi.
 - b. The atomization pressure of the organic waste stream shall be maintained at or above 14 psi.
7.
 - a. The quench blowdown pH, as measured at AE-901 and recorded at AR-901, shall be maintained at no less than 7.25.
 - b. The maximum temperature of the exhaust gas emanating from the quench tank, as measured at TISH-911 shall not exceed 230°F.
8. The Permittee shall operate the Venturi Scrubber as follows:
 - a. The pressure drop across the scrubber venturi, as measured at PDT-945 and recorded at PDR-945, must be maintained at no less than 54 in. W.G.
 - b. The venturi scrubber recirculation water feed rate, as measured at FT-901 and recorded at FR-901 shall be maintained at no less than 254 L/min.
 - c. The total solids concentration in the venturi scrubber water feed shall not exceed 18,000 mg/L.
 - d. The minimum venturi blowdown shall be maintained at or above 2 gpm.

- e. The venturi recirculating water pH, as measured at AE-902 and recorded at AR-902, shall be no less than 6.2.
9. The Permittee shall control fugitive emissions from the combustion zone of the incinerator by maintaining the combustion zone of the incinerator totally sealed from leaks and by conducting regular inspections during operation.
10. During start-up and shut-down of the incinerator, hazardous wastes shall not be introduced into the incinerator unless the incinerator is operating within the conditions specified in this Condition VI.D.
11. When the waste feed cut-off occurs because of exceeding the CO levels specified in this permit, the waste feed to the incinerator shall not be resumed until after the instantaneous CO level has been brought down to 100 ppmv (the permitted level) for at least 5 minutes.
12. The Permittee must cease waste feed when changes in waste feed or operating conditions exceed limits designated in Conditions VI.C and VI.D of this module, as required by 40 C.F.R. § 264.345(f).
13. The Permittee shall construct, maintain and calibrate the monitoring systems and the automatic waste feed cutoff systems specified in Table I to automatically cut off the hazardous waste feed to the incinerator at the specified levels.
14. The Permittee shall incinerate hazardous wastes in only two of the three hazardous waste incinerators at a time.

E. MONITORING AND INSPECTION

1. The Permittee shall install, maintain, calibrate, and operate monitoring equipment which continuously records operating parameters specified in Condition VI.D.11 required by 40 C.F.R. § 264.347(a)(1) and (2).
2. The incinerator and associated equipment shall be inspected, at least daily, for leaks, spills, emissions, and signs of malfunction as required by 40 C.F.R. § 264.347(b).
3. The Permittee shall perform monthly testing of the automatic waste feed cut-off systems and all associated

alarms, as specified in Conditions VI.D.18 by simulating upset conditions for each parameter, as required by 40 C.F.R. § 264.347(c).

4. The monitoring and inspection data required by Conditions VI.E.1, VI.E.2 and VI.E.3 must be recorded, and the records must be placed in the operating log as required by 40 C.F.R. § 264.347(e).

F. CONTROL OF METALS AND HYDROGEN CHLORIDE EMISSIONS

Section 3005(c)(3) of RCRA, as amended by the HSWA, provides authority to EPA to establish permit conditions for hazardous waste facilities beyond the scope of existing regulations. 40 C.F.R. §§ 270.32 and 271.1(j).

1. The Permittee shall provide, within thirty (30) calendar days of the permit effective date, the following:
 - (a) The information requested in parts 1 and 2 of the Worksheet #1 in Attachment K to this permit. The other parts may be completed when the waste data is gathered.
 - (b) Provide the information requested in the Questionnaire in Attachment K to this permit.
2. The Permittee shall submit, within ninety (90) calendar days from the permit effective date, a Waste Characterization Plan to EPA for review. The Waste Characterization Plan shall address the characterization of the metals and total chlorine content of the waste stream(s) which enters the incinerator. The Waste Characterization Plan must address, at a minimum, the following:
 - (a) Submit a waste stream sampling and analysis plan which is representative of the "worst case" stream expected to be treated in the incinerator system. A "worst case" waste stream for implementation of Condition VI.F of this Module shall be the stream at which the highest concentration of each metal and the highest total chlorine is present.
 - (b) Include a discussion on the sampling and analysis frequency and its rationale. Provide a schedule for implementing the waste characterization.
 - (c) The following metals must be addressed: antimony, arsenic, barium, beryllium, cadmium, chromium (total),

chromium (hexavalent), lead, mercury, silver, and thallium.

(d) The sampling methods must be consistent with the Test Methods for Evaluating Solid Waste, Third Edition, SW-846. Analytical methods shall be consistent with the Test Methods For Evaluating Solid Waste, Third Edition, SW-846, or an equivalent method subject to approval by EPA.

3. The Permittee shall implement the Waste Characterization Plan, within 30 days from the date EPA approves the plan.
4. The Permittee shall submit to EPA the results of the Waste Characterization Plan in a report within 30 days from completion of the waste characterization. The results should indicate the highest concentration of each metal and total chlorine in the waste stream entering the incinerator.
5. EPA shall, based on the results of implementation of Conditions VI.F.1 and VI.F.3 of this Module and current guidance on metals and hydrogen chloride controls for hazardous waste incinerators, make one of the following determinations:
 - (a) Determine whether the Permittee shall conduct site-specific dispersion modeling and to demonstrate that the established acceptable ambient levels are not exceeded.
 - (b) Determine the incinerator waste feed rate limits for metals and total chlorine, in accordance with EPA guidance, as current; or
 - (c) Determine emission limits in accordance with EPA guidance, as current.
6. The Permittee shall have the opportunity to demonstrate by site-specific dispersion modeling and data from Condition VI.F.1 and VI.F.3 or test emission data from Condition VI.F.7 that feed rate limits or emission rate limits higher than those imposed by EPA will not result in an exceedence of ambient levels that pose unacceptable health risks. If the Permittee opts to exercise this right, the Permittee shall submit to EPA for review, a dispersion modeling plan for a site-specific analysis which is consistent with the Guidelines on Air Quality Models, EPA-450/2-78-027R,

U.S. EPA, Office of Air Quality and Standards, Research Triangle Park, N.C.

(a) The Permittee shall conduct the dispersion modeling within thirty (30) calendar days from the date of EPA approval of the use of the site-specific dispersion model and complete the dispersion modeling within sixty (60) calendar days.

(b) The Permittee shall provide the modeling results and risk analysis to EPA for review within thirty (30) calendar days after completing the modeling. A full printout of the input data, or the full input shall be appended to the results.

7. If EPA, based on consideration of (1) Conditions VI.F.1 and VI.F.3 or (1) in conjunction with site-specific dispersion modelling, determines that the Permittee shall conduct a test burn to demonstrate that metal and/or hydrogen chloride emissions will not pose unacceptable health risks, the following shall be provided:

(a) Within sixty (60) calendar days of EPA's determination, the Permittee shall submit a draft Test Burn Plan to the Regional Administrator for approval.

(b) Within ninety (90) calendar days of EPA's approval of the Test Burn Plan, the Permittee shall submit test burn data to support setting higher metals limits.

8. EPA shall consider the results from implementing conditions (1) VI.F.1 and VI.F.3, or (2) Condition VI.F.7., or (1) or (2) in conjunction with site-specific dispersion modelling, and current guidance on metals and hydrogen chloride controls for hazardous waste incinerators, in establishing permit conditions to control metals and hydrogen chloride emissions from the incinerator. These permit conditions can be in the following form:

(a) Specify feed rate limits.

(b) Specify the actual feed rates by feed system and the actual emissions determined in a trial burn as long as these emissions do not exceed the ambient levels that pose unacceptable health risks.

(c) Specify air pollution control device operation and maintenance requirements to ensure that the emission limits are not exceeded.

G. REPORTING

1. The operator must indicate in the operating log whenever the waste feed is shut-off because of an emergency situation or because of concern that a permit condition may be exceeded. The log must include a statement of the problem or situation that caused the shut-off and the action, if any, the operator took or plans to take to address the problem. If the waste feed is shut-off more than 30 times in a calendar month, the Permittee shall notify the EPA in writing within seven (7) calendar days of the thirtieth shut-off. The notice must include the dates and circumstances of each shut-off and the action the operator took to address each problem.
2. The Permittee shall submit to EPA in writing, a quarterly summary report which shall include, at a minimum, the following items pertaining to the incinerator's performance during the previous quarter: all shut-off events, date and time of shut-off events, ← cause(s) triggering shut-off, remedial actions taken (or planned) to correct the problem, results of → instrument inspection and calibration, and any → noncompliance with permit operating conditions, Conditions E, et seq., of this Module. The reports shall be submitted no later than fourteen days from the beginning of the quarter. (The beginning of each quarter shall be January 1, April 1, July 1, and October 1.)

H. Closure

At closure, the Permittee must comply with 40 C.F.R. § 264.351 and Attachment E.1 and E.2 of this permit.

Table I - Automatic Waste Feed Shut-Off Interlocks

Condition	Instrument ID No.	Setpoint Limit	Termination Procedure	Test Frequency (Simulated)	Calibration Frequency
High combustion chamber temp.	TE-905	1150°C	Immediate	Monthly	Manufacturer's Specification
Low combustion chamber temp.	TE-905	914°C	"	"	"
High comb. air flowrate	FT-907 FT-906 FT-975D FT-975C	2000 acfm	"	"	"
Flame failure		No flame	"	"	"
Power failure		No power	"	"	"
High quench tank temp.	TISH911	230°F	"	"	"
Low quench tank water level	ISL910	33" [*]	"	"	"
Low quench wastewater pH	AE-901	7.25	"	"	"
Low venturi recy. pH	AE-902	6	"	"	"
Low scrubber pressure drop	PDT-945	54" H ₂ O	"	"	"
Low scrubber recycle flowrate	FT-901	254 L/min	"	"	"
High CO in stack	AR 900B	100 ppmv @60 min 500 ppmv @10 min	"	Daily	"

Connected to Alarm

Low atomization pressure (aq)		17 psi	ALARM Immediate	Monthly	Manufacturer's Specifications
Low atomization pressure (org)		14 psi	"	"	"
High waste feed Organic	FT-908	6.5 L/min.	"	"	"
Aqueous	FT-923	22.0 L/min.	"	"	"

* based on location of switch - looks greater than 33"

1989
Permit

MODULE I

STANDARD CONDITIONS

RCRA PERMIT 090613357

SMITHKLINE BEECHAM PHARMACEUTICALS CO.
GUAYAMA, P.R.

MODULE I - STANDARD CONDITIONS

- A. EFFECT OF PERMIT. This permit authorizes only the management of hazardous wastes expressly described in this permit and does not authorize any other hazardous management activities. Compliance with the terms of this permit constitutes compliance, for purposes of enforcement, with the requirements of Subtitle C ("Hazardous Waste Management") of RCRA, as amended by HSWA, except for those requirements not included in the permit which become effective by statute, or which are promulgated under 40 C.F.R. Part 268 restricting the placement of hazardous waste in or on the land. Issuance of this permit does not convey any property rights of any sort, or any exclusive privilege; nor does it authorize any injury to persons or property, or invasion of other private rights, or any infringement of Commonwealth of Puerto Rico (hereafter referred to as the "Commonwealth") or local laws or regulations. Compliance with the terms of this permit does not constitute a defense to any action brought under Sections 3013 and/or Section 7003 of RCRA, 42 U.S.C. §§ 6934 and/or 6973, Sections 104, 106(a), 107 and/or 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"), as amended, 42 U.S.C. 9601(a) et seq., or any other law, and applicable regulations, governing protection of public health or the environment. 40 C.F.R. §§ 270.4 and 270.30(g).
- B. PERMIT ACTIONS. This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 C.F.R. §§ 270.41-270.43. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition. Review of any application for a permit renewal shall involve consideration of improvements in the state of control and measurement technology, as well as changes in applicable regulations. Section 3005(c) of RCRA, 42 U.S.C. § 6925(c)(3).
- C. PERMIT CONDITIONS. Pursuant to Section 3005(c)(3) of RCRA, 42 U.S.C. § 6925(c)(3) (Section 212 of HSWA), promulgated as regulation at 40 C.F.R. § 270.32(b), this permit contains those terms and conditions the Administrator determines necessary to protect human health and the environment. If not otherwise specified in this permit, all the requirements

of 40 C.F.R. §§ 270.30, 270.31, 270.32 and 270.33 are hereby incorporated into this permit.

- D. PERMIT SUBMITTALS. All plans, reports and schedules required by the terms of this permit are unless otherwise specified, upon approval by EPA, incorporated into this permit. Any noncompliance with such approved studies, reports or schedules shall constitute a violation of this permit.

Unless otherwise specified, the Permittee shall revise all submittals as specified by EPA, and in accordance with RCRA, as amended by HSWA. EPA shall make all final determinations as to administrative and technical completeness of all submitted documents.

- E. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby. 40 C.F.R. § 124.16(a).

F. Duties and Requirements.

1. Duty to Comply. The Permittee shall comply with all conditions of this permit, except that the Permittee need not comply with the conditions of this permit to the extent and for the duration such noncompliance is authorized by an emergency permit (see 40 C.F.R. § 270.61). Any permit noncompliance, other than noncompliance authorized by the Regional Administrator under the terms of an emergency permit, constitutes a violation and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. 40 C.F.R. § 270.30(a).
2. Duty to Reapply. If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee shall submit a complete application for a new permit at least 180 calendar days before this permit expires, unless the Regional Administrator grants permission for a later date which is not later than the expiration date of the existing permit, and obtains a new permit. 40 C.F.R. §§ 270.10(h) and 270.30(b).

3. Permit Expiration and Continuation. Unless modified pursuant to Condition K of this module, this permit will be in effect for the time period stated on page i, which must not exceed five (5) years. Each permit shall be reviewed by the Administrator five (5) years after the date of permit issuance or reissuance and shall be modified as necessary, as provided in 40 C.F.R. §§ 270.41 and 270.50. However, as set forth in 40 C.F.R. § 270.51, as long as EPA is the permit issuing authority, this permit and all conditions herein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete application (under 40 C.F.R. § 270.14 and the applicable sections in §§ 270.152, 270.29, and 270.10) and through no fault of the Permittee, the Regional Administrator has not issued a new permit as set forth in 40 C.F.R. Part 124.

If the Commonwealth, at the time of permit renewal, has permitting authority under 40 C.F.R. Part 271 and if the Permittee has submitted a timely and complete application under Commonwealth law and regulations, the terms and conditions of this permit continue in force beyond the expiration date of the permit, but only until the effective date of the Commonwealth's issuance or denial of a Commonwealth permit which includes measures pursuant to HSWA. 40 C.F.R. § 270.51(d).

4. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. 40 C.F.R. § 270.30(c).
5. Duty to Mitigate. In the event of noncompliance with this permit, the Permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment. 40 C.F.R. § 270.30(d).
6. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate sampling, laboratory and process controls, including

appropriate quality assurance/quality control ("QA/QC") procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit. 40 C.F.R. § 270.30(e).

7. Duty to Provide Information. The Permittee shall furnish to the Regional Administrator, within a reasonable time, any relevant information which the Regional Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Regional Administrator, upon request, copies of records required to be kept by this permit. 40 C.F.R. §§ 270.30(h) and 264.74(a).
8. Inspection and Entry. The Permittee shall allow the Regional Administrator, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:
 - (a) Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - (d) Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by RCRA, as amended, any substances or parameters at any location.
40 C.F.R. §§ 270.30(i) and 264.74(a).
9. Monitoring and Records.
 - (a) Representativeness of Samples and Measurements. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. 40 C.F.R. § 270.30(j). The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of 40 C.F.R. Part 261 or an

equivalent sampling method approved by the Regional Administrator. 40 C.F.R. § 261.20(c). Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (EPA Publication SW-846, Third Edition, 1987, as currently amended), and Standard Methods for the Examination of Water and Waste Water (16th Edition, 1985), or an equivalent method approved by the Regional Administrator, as specified in the waste analysis plan in Attachment A to this Permit. 40 C.F.R. § 270.6.

- (b) Retention of Records. The Permittee shall retain until closure of the facility, all records and data used to complete the application for this permit. The Permittee shall also retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, and the certification required by 40 C.F.R. § 264.73(b)(9).
- (c) Content of Monitoring Records. Records of monitoring information shall specify:
 - (i) The date(s), exact place, and time of sampling or measurements;
 - (ii) The individual(s) who performed the sampling or measurements;
 - (iii) The date(s) analyses were performed;
 - (iv) The individual(s) who performed the analyses;
 - (v) The sampling techniques or methods used;
 - (vi) The analytical techniques or methods used; and
 - (vii) The results of such analyses. 40 C.F.R. § 270.30(j).
- (d) Quality Assurance Program. The Permittee shall conduct a quality assurance program to ensure that the monitoring data are technically accurate and statistically valid. The quality assurance program shall be in accordance with Section 10 of

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (EPA Publication SW-846, Third Edition, 1987, as currently amended), and "Laboratory Data Validation, Functional Guidelines for Evaluating Organics Analyses" and "Evaluation of Metals Data for the Contract Laboratory Program" established by the Regional Administrator, or an EPA-approved quality assurance program.

- (e) Monitoring Reports. Monitoring results must be reported at the intervals specified elsewhere in this permit. 40 C.F.R. § 270.30 (1)(4).
- 10. Reporting Planned Changes. The Permittee shall give notice to the Regional Administrator, as soon as possible, of any planned physical alterations or additions to the permitted facility. 40 C.F.R. § 270.30(1)(1).
- 11. Certification of Construction or Modification. [NOT APPLICABLE]
- 12. Anticipated Noncompliance. The Permittee shall give advance notice to the Regional Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. This notice must include a description of all incidents of noncompliance reasonably expected to result from the proposed changes. 40 C.F.R. § 270.30(1)(1) and (2).
- 13. Transfer of Permit. This permit is not transferable to any person unless notice has been given to the Regional Administrator and the permit has been modified, or revoked and reissued, or a minor modification made to identify the new permittee and to incorporate such other requirements as may be necessary. 40 C.F.R. §§ 270.30(1)(3) and 270.40.
- 14. Compliance Schedules. [SEE SPECIFIC MODULES III, IV, V, and VI]
- 15. Immediate Reporting of Releases.
 - (a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:

- (i) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and
 - (ii) Notify appropriate Commonwealth or local agencies with designated response roles if their help is needed. 40 C.F.R. § 264.56(a), (b), and (c).
 - (b) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he must report his findings as follows:
 - (i) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and
 - (ii) He must immediately notify either the government official designated as the on-scene coordinator for that geographical area, or the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include:
 - a. Name and telephone number of reporter;
 - b. Name and address of facility;
 - c. Time and type of incident (e.g., release, fire);
 - d. Name and quantity of material(s) involved, to the extent known;
 - e. The extent of injuries, if any; and
 - f. The possible hazards to human health, or the environment, outside the facility.
40 C.F.R. § 264.56.
16. Twenty-four Hour Reporting. The Permittee shall verbally report to the Regional Administrator any noncompliance with the permit which may endanger human health or the environment. Any such information shall be reported orally within 24 hours from the time the

Permittee becomes aware of the circumstances. This report shall include the following:

- (a) Information concerning the release of any hazardous waste which may cause an endangerment to public drinking water supply sources;
- (b) Any information of a release or discharge of hazardous waste, or of a fire or explosion at the facility, which could threaten the environment or human health outside the facility;
- (c) The description of the occurrence and its cause, as reported in Module I, Condition F.16(a) or (b) shall include:
 - (i) Name, address and telephone number of the owner or operator;
 - (ii) Name, address, and telephone number of the facility;
 - (iii) Date, time, and type of incident;
 - (iv) Name and quantity of material(s) involved;
 - (v) The extent of injuries, if any;
 - (vi) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and
 - (vii) Estimated quantity and disposition of recovered material that resulted from the incident. 40 C.F.R., § 270.30(1)(6).
- (d) A written submission shall also be provided to the Regional Administrator within five (5) calendar days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The

Permittee need not comply with the five day written notice requirement if the Regional Administrator waives that requirement and the Permittee submits a written report within fifteen (15) calendar days of the time the Permittee becomes aware of the circumstances. 40 C.F.R. § 270.30(1)(6).

The oral reports required above may be made by contacting the EPA Region II 24-hour Emergency Response Center, at (201) 548-8730, or any designated telephone number which may subsequently replace it.

17. Unmanifested Waste Report. [NOT APPLICABLE]
18. Manifest Discrepancy Report. If a significant discrepancy (as defined by 40 C.F.R. § 264.72(a)) in a manifest is discovered, the Permittee must attempt to reconcile the discrepancy. If not resolved within 15 calendar days, the Permittee must submit a letter report to the Regional Administrator. The report must include a copy of the manifest and must meet the information requirements of 40 C.F.R. § 264.72.
19. Biennial Report. The Permittee shall prepare and submit a biennial report covering facility activities. This report shall be submitted by March 1 of each even numbered calendar years and shall contain all of the information required by 40 C.F.R. § 264.75. 40 C.F.R. § 270.30(1)(9).
20. Additional Noncompliance Reporting. The Permittee shall report all instances of noncompliance (including release of hazardous waste, fire, or explosion) not required to be reported under Module I, Conditions F.9, F.14 or F.16. Such noncompliance shall be reported for each calendar quarter (i.e., January through March and each subsequent quarter) by no later than 30 calendar days after the end of the quarter. The reports shall contain the information listed in Module I, Condition F.16.(c)(i-vii), and all other relevant information. 40 C.F.R. § 270.30(1)(10).
21. Other Information. Whenever the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application, or in any report to the Regional Administrator, the Permittee shall promptly submit such facts or information to the Regional Administrator. 40 C.F.R. § 270.30(1)(11).

- G. Signatory Requirement. All reports or other information requested by the Regional Administrator shall be signed and certified as required by 40 C.F.R. §§ 270.11(b) and 270.30(k).
- H. Confidential Information. The Permittee may claim confidential, any information required to be submitted by this permit in accordance with 40 C.F.R. § 270.12 and 40 C.F.R. Part 2, Subpart B.
- I. Documents To Be Submitted Prior to Operation.
[NOT APPLICABLE]
- J. Documents to be Maintained at the Facility. In addition to a copy of this permit and any amendments, revisions, or modifications to the permit and its attachments, the following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility, except as noted.
1. A copy of the written operating record that was prepared in accordance with 40 C.F.R. § 264.73. This operating record shall include, at a minimum, the following information:

The location of each hazardous waste within the facility and the quantity at each location.
 2. A copy of the waste analysis plan that was prepared in accordance with 40 C.F.R. § 264.13(b).
 3. Records and results of waste analyses performed as specified in 40 C.F.R. §§ 264.13, 264.17, 264.314, 264.341, 268.4(a), and 268.7.
 4. Summary reports and details of all incidents that require implementation of the contingency plan as specified in 40 C.F.R. § 264.56(j).
 5. A copy of the written inspection plan and schedule prepared in accordance with 40 C.F.R. § 264.15(b) must be kept for the duration of the permit.
 6. Records and results of inspections as required by 40 C.F.R. §§ 264.15(d), 264.174, 264.195(d) and 264.347(d). These data must be kept for the duration of the permit.

7. Personnel training documents and records that demonstrate continuous compliance with the requirements of 40 C.F.R. § 264.16(d).
 8. A current copy of the contingency plan and all revisions to the plan, as required by 40 C.F.R. § 264.53(a).
 9. A written closure plan and post-closure plan (if necessary), as required by 40 C.F.R. § 264.112(a).
 10. A copy of the latest closure cost estimate prepared in accordance with 40 C.F.R. § 264.142(a) and (c) and, when this estimate has been adjusted in accordance with 40 C.F.R. § 264.142(b), the latest adjusted closure cost estimate, as required by 40 C.F.R. § 264.142(d).
 11. Monitoring, testing, or analytical data where required by 40 C.F.R. Part 264, Subparts F, J, and O.
 12. Records and results of waste analyses required by other parts of this permit to demonstrate compliance with the requirements of 40 C.F.R. Part 268 (Land Disposal Restrictions), except these data must be kept for the duration of the permit.
- K. Permit Modifications. The permit may be modified as allowed under 40 C.F.R. §§ 270.41 and 270.42, as modified by 53 Fed. Reg. 37912. Modifications to this permit may be made by the Regional Administrator for cause in accordance with 40 C.F.R. § 270.41. Modifications to the permit may also be requested by the Permittee as is provided for in 40 C.F.R. § 270.42.
- L. Reports, Notifications and Submittals to the Regional Administrator. All reports, notifications or other submittals required by this permit are to be submitted to the Regional Administrator and sent certified mail or hand delivered to:

Regional Administrator
U.S. Environmental Protection Agency, Region II
26 Federal Plaza
New York, New York 10278

Copies shall also be sent to the following addresses:

U.S. Environmental Protection Agency, Region II
Hazardous Waste Facilities Branch
Air and Waste Management Division
26 Federal Plaza
New York, New York 10278

U.S. Environmental Protection Agency, Region II
Permits Administration Branch
Office of Policy and Management
26 Federal Plaza
New York, New York 10278

Commonwealth of Puerto Rico
Environmental Quality Board
P.O. Box 11488
Santurce, Puerto Rico 00910-1488

Attn: Land Pollution Control Area

- M. DEFINITIONS. For the purpose of this permit, terms used herein shall have the same meaning as those set forth in Title 40 of the Code of Federal Regulations (40 C.F.R. Parts 260 through 270), at the time of issuance of this permit, unless this permit specifically states otherwise. Where terms are not otherwise defined, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

"Facility" means all contiguous land and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combination of them).

"Hazardous constituents" means those constituents listed in Appendix VIII to 40 C.F.R. Part 261. For the purpose of this permit, the term, "hazardous waste" also includes hazardous constituents.

"Hazardous waste" means a hazardous waste as defined in 40 C.F.R. § 261.3 of this chapter. For the purpose of this permit, the term, "hazardous waste" also includes hazardous constituents.

"Regional Administrator" is the Regional Administrator of the United States Environmental Protection Agency for Region II, his designee or authorized representative.

A "Solid Waste Management Unit" ("SWMU") includes any discernible waste management unit from which hazardous constituents have migrated or may migrate, irrespective of whether the unit was intended for the management of hazardous or solid wastes (as those terms are defined in §§ 1004(5) and (27) of RCRA, 42 U.S.C. §§ 6903(5) and (27) and the regulations promulgated pursuant to RCRA, 40 C.F.R. §§ 261.2 and 261.3). These units include, but are not limited to: landfills, surface impoundments, waste piles, land treatment units, tanks, elementary neutralization units, transfer stations, container storage areas, incinerators, injection wells, recycling units, and closed and abandoned units. Certain areas associated with production processes which have become contaminated as a result of routine, and systematic releases of wastes, or hazardous constituents from wastes, are also considered SWMUs.

"Release" for purposes of this permit includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injection, escaping, leaching, dumping, or disposing into the environment of any hazardous waste or hazardous constituent.

- N. DISPUTE RESOLUTION. The Permittee shall use its best effort to informally and in good faith resolve all disputes or differences of opinion. If, however, disputes arise concerning this permit, including, but not limited to, implementation of any plans, approval of documents, scheduling of any work, selection, performances or completion of any corrective action or any other obligation arising as a result of this permit, the Permittee shall submit, within thirty (30) calendar days, a written statement to EPA that argues the Permittee's position. The written statement shall set forth the Permittee's specific points of contention, the Permittee's position and reasons for maintaining its position, and any additional matters that the Permittee considers necessary or relevant for the EPA's determination. If the dispute cannot be resolved informally within thirty (30) calendar days of EPA's receipt of the written argument, unless an extension of time of up to sixty (60) calendar days is requested by either party, EPA will provide the Permittee its decision of the dispute which shall be incorporated into the permit.

**MODULE II
GENERAL FACILITY
CONDITIONS**

RCRA PERMIT 090613357

**SMITHKLINE BEECHAM PHARMACEUTICALS CO.
GUAYAMA, P.R.**

MODULE II - GENERAL FACILITY CONDITIONS

- A. Design and Operation of Facility. The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

The Permittee is authorized to store only the hazardous wastes identified in Modules IV and V, Condition B and to incinerate those hazardous wastes under the limitations in Module VI, Condition B.

The Permittee is not authorized to, and therefore shall not, receive hazardous wastes generated by facilities other than those owned by SmithKline Beecham (SKB), or its subsidiaries in Puerto Rico.

- B. Required Notice. [NOT APPLICABLE]

1. Hazardous Waste Imports--[NOT APPLICABLE--The Permittee is prohibited from importing hazardous wastes.]
2. Hazardous Waste from Off-site Sources--
[NOT APPLICABLE--The Permittee manages hazardous wastes generated on-site and from subsidiaries of SK&F in Puerto Rico. SK&F, the owner/operator of the generating facilities of the hazardous wastes, is also the owner/operator of the receiving facility.]

- C. General Waste Analysis.

1. The Permittee shall follow the procedures described in the waste analysis plan, included as Attachment A to this permit, and conduct a quality assurance program as specified in Module I, Condition F.9.(d).
2. The Permittee shall analyze the hazardous wastes in the tank systems on a quarterly basis for heat of combustion, organic chloride content, ash content (TDS and TS), and viscosity.
3. The Permittee shall verify its waste analysis as part of the quality assurance program. The quality assurance program will be in accordance with current EPA practices (Test Methods for Evaluating Solid Waste:

Physical/Chemical Methods, SW-846, Third Edition, 1987, as currently amended, and the data validation procedures as established by the Regional Administrator) or equivalent methods approved by the Regional Administrator, and at a minimum, ensure that the Permittee maintains properly functioning instruments, uses approved sampling and analytical methods, as specified in 40 C.F.R. Part 261, Appendices I, II and III, assures the validity of sampling and analytical procedures, and performs correct calculations.

4. At a minimum, the waste analysis plan must include the following:
 - (a) The parameters to be analyzed for in each hazardous waste, and the rationale for the selection of these parameters, as required by 40 C.F.R. § 264.13(b)(1);
 - (b) The test methods which will be used to test for these parameters, as required by 40 C.F.R. § 264.13(b)(2);
 - (c) The sampling method(s) which will be used to obtain a representative sample of the waste to be analyzed, as required by 40 C.F.R. § 264.13(b)(3); and
 - (d) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date, as required by 40 C.F.R. § 264.13(b)(4).
5. The Permittee shall comply with the land disposal restriction provisions of 40 C.F.R. Part 268 by testing its waste or an extract developed using the test method described in Appendix I of 40 C.F.R. Part 268, or by using knowledge, based on documentation in the Permittee's records, of the waste to determine if the waste is restricted from land disposal:
 - (a) If the Permittee determines that it is managing a restricted waste and the waste exceeds the applicable treatment standards, for each shipment of the restricted waste the Permittee must notify the treatment facility in writing of the appropriate treatment standard set forth in Subpart D of 40 C.F.R. Part 268. The notice must include the following information:

- (i) EPA Hazardous Waste Number;
 - (ii) The corresponding treatment standards;
 - (iii) The manifest number associated with the shipment of waste; and
 - (iv) Waste analysis data, where available.
- (b) If the Permittee determines that it is managing a restricted waste, and determines that the waste can be land disposed without further treatment, for each shipment of the restricted waste it must submit, to the land disposal facility, a notice and a certification stating that the waste meets applicable treatment standards.
- (i) The notice must include the following information:
 - (A) EPA Hazardous Waste Number;
 - (B) The corresponding treatment standards;
 - (C) The manifest number associated with the shipment of wastes.
 - (D) Waste analysis data, where available.
 - (ii) The certification must be signed by an authorized representative and must state the following:

I certify under penalty of law, that I personally have examined and am familiar with the waste, through analysis and testing or through knowledge of the waste and that support this certification that the waste complies with the treatment standards specified in 40 C.F.R. Part 268, Subpart D. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

- (c) If the Permittee determines whether the waste is restricted based solely on his knowledge of the waste, all supporting data used to make this determination must be maintained on-site in the Permittee's files.
- 6. The Permittee shall also comply with the modifications that have been made to the submitted waste analysis plan. These modifications are included below:
 - (a) The Permittee shall comply with said Waste Analysis Plan. The Permittee shall review and amend said Waste Analysis Plan whenever the facility permit is revised or when changes in plant processes affect the manner in which a specific waste is managed.
 - (b) The Permittee shall maintain records that provide a detailed chemical and physical analysis of a representative sample of each waste. At a minimum, the analysis shall contain all the information which must be known to treat, store, or dispose of the waste pursuant to 40 C.F.R. Parts 124, 261, 262, 264, 268, and 270.
 - (c) The Permittee shall repeat the analysis as necessary to ensure that it is accurate and up to date. At a minimum, the analysis shall be repeated when the Permittee is notified, or has reason to believe, that the process or operation generating the hazardous waste has changed, unless the change will not result in a change in the chemical or physical makeup of the waste material.
 - (d) The Permittee shall keep a copy of the waste analysis plan at the facility in accordance with the requirements of Module I, Condition J. of this permit.
- D. Security. The Permittee shall comply with the security provisions of 40 C.F.R. § 264.14(a), (b) and (c), and shall follow the security plan outlined in Attachment B. At a minimum, the Permittee shall:
 - 1. Provide a 24-hour surveillance system which continuously monitors and controls entry onto the active portions of the facility; or

2. Provide the following controls:
 - (a) An artificial or natural barrier which completely surrounds the active portions of the facility; and
 - (b) A means to control entry, at all times, through the gates or other entrances to the facility. 40 C.F.R. § 264.14(b).
3. The Permittee shall post and maintain a warning sign with the legend, "DANGER--Unauthorized Personnel Keep Out," at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to the active portion. The legend must be written in both English and Spanish and be legible from a distance of at least 25 feet. Existing signs, at the time of permit issuance, with a different legend may be used only if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous. 40 C.F.R. § 264.14(c).

E. General Inspection Requirements. The Permittee shall follow the inspection plan and schedule included as Attachment B to this permit and demonstrate continuous compliance with 40 C.F.R. § 264.15. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 40 C.F.R. § 264.15(c). Records of inspections shall be kept as required by 40 C.F.R. § 264.15(d). At a minimum, this inspection schedule must include the following:

1. Inspecting monitoring equipment, safety and emergency equipment, security devices, loading and unloading areas, and operating and structural equipment that are important for preventing, detecting, or responding to environmental or human health hazards, as required by 40 C.F.R. § 264.15(b)(1);
2. The schedule must identify the types of problems which are to be looked for during the inspection, as required by 40 C.F.R. § 264.15(b)(3);
3. The frequency of inspection, which is based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or any operator error goes undetected between inspections.

Areas subject to spills, such as loading and unloading areas must be inspected daily when in use; and

4. The specific remedy to be implemented when inspections disclose problems.

F. Personnel Training. The Permittee shall conduct personnel training as required by 40 C.F.R. § 264.16(a), (b) and (c). This training program shall follow the attached outline in Attachment C to this Permit. The Permittee shall maintain training documents and records as required by 40 C.F.R. § 264.16(d) and (e). At a minimum, the training program must include the following:

1. The program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures relevant to the positions in which they are employed, as required by 40 C.F.R. § 264.16(a)(2);
2. As required by 40 C.F.R. § 264.16(a)(3), the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:
 - (a) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;
 - (b) Key parameters for automatic waste feed cut-off systems;
 - (c) Communications or alarm systems;
 - (d) Response to fires or explosions;
 - (e) Response to groundwater contamination incidents; and
 - (f) Shut-down of operations.
3. In accordance with 40 C.F.R. § 264.16(b) and (c), provisions to ensure that:
 - (a) Facility personnel must successfully complete the program required by 40 C.F.R. § 264.16(a) within six (6) months after the date of their

employment or assignment to a facility, or to a new position at a facility, whichever is later;

- (b) Employees do not work in unsupervised positions until they have completed the training requirements of 40 C.F.R. § 264.16(a); and
- (c) Facility personnel take part in an annual review of the initial training required by 40 C.F.R. § 264.16(a).

G. General Requirements for Ignitable, Reactive, or Incompatible Waste.

The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste as required by 40 C.F.R. § 264.17 and as described in Attachment F to this Permit. The Permittee shall also document this compliance, as required by 40 C.F.R. § 264.17(c).

H. Location Standards. [NOT APPLICABLE]

I. Preparedness and Prevention.

1. Required Equipment. At a minimum, the Permittee shall equip the facility with the equipment set forth in the contingency plan, Attachment D to this Permit as required by 40 C.F.R. § 264.32.
2. Testing and Maintenance of Equipment. The Permittee shall test and maintain the equipment specified in the previous permit condition as necessary to assure its proper operation in time of emergency, as set forth in the Inspection Schedule (Attachment B to this Permit). 40 C.F.R. § 264.33.
3. Access to Communications or Alarm System. The Permittee shall maintain immediate access to the communications or alarm system as required by 40 C.F.R. § 264.34, in accordance with Attachment B to this Permit.
4. Required Aisle Space. At a minimum, the Permittee shall, in accordance with Attachment G, maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of the facility

in an emergency as required by 40 C.F.R. § 264.35, and to provide access for the at least weekly inspections required by 40 C.F.R. § 264.174.

5. Arrangements with Local Authorities. The Permittee shall attempt to make arrangements with Commonwealth and local authorities as required by 40 C.F.R. § 264.37. If Commonwealth or local officials refuse to enter into preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

J. Contingency Plan.

1. Implementation of Plan. The Permittee shall immediately carry out the provisions of the contingency plan, Attachment D, and follow the emergency procedures described by 40 C.F.R. § 264.56 whenever there is a fire, explosion, or any release of hazardous waste or hazardous waste constituents which threatens or could threaten human health or the environment.
2. Resumption of Hazardous Waste Activity. After any event requiring implementation of the contingency plan, the Permittee shall not resume hazardous waste management in the affected area until all equipment used during the contingency has been cleaned, recharged, or replaced, as appropriate.
3. Copies of Plan. The Permittee shall comply with the requirements of 40 C.F.R. § 264.53 which require that a copy of the contingency plan and all revisions to the plan must be:
 - (a) Maintained at the facility; and
 - (b) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.
4. Amendments to Plan. The Permittee shall review and immediately amend, if necessary, the contingency plan, as required by 40 C.F.R. § 264.54. The plan must be reviewed whenever:
 - (a) The facility permit is revised;
 - (b) The plan fails in an emergency;

- (c) The facility changes in design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;
 - (d) The list of emergency coordinators changes; or
 - (e) The list of emergency equipment changes.
 - 5. Contents of Contingency Plan. The Permittee must ensure that the contingency plan contains the information required by 40 C.F.R. § 264.52.
 - 6. Emergency Coordinator. The Permittee shall comply with 40 C.F.R. § 264.55 at all times.
 - 7. Emergency Procedures. The Permittee's emergency coordinator (or his designee when the emergency coordinator is on call) shall immediately implement the emergency procedures required by 40 C.F.R. § 264.56 whenever there is an imminent or actual emergency situation.
- K. Manifest System. The Permittee shall comply with the manifest requirements of 40 C.F.R. §§ 264.71 and 264.72.
- L. Recordkeeping and Reporting.
- 1. Operating Record. The Permittee shall maintain a written operating record at the facility in accordance with the applicable portions of 40 C.F.R. § 264.73.
 - 2. Availability, Retention, and Disposition of Records. All records, including plans, must be made available to EPA in accordance with 40 C.F.R. § 264.74(a). The retention period for all records is extended automatically during any unresolved enforcement action regarding the facility or as requested by the Regional Administrator, as required by 40 C.F.R. § 264.74(b). A copy of records of waste disposal locations and quantities under § 264.73(b)(2) must be submitted to the Regional Administrator and local land authority upon closure of the facility as required by § 264.74(c).

3. Biennial Report. The Permittee shall comply with the biennial report requirements of 40 C.F.R. § 264.75, by March 1 of each even numbered year.
4. Unmanifested Waste Report. [NOT APPLICABLE]
5. Additional Reports. The Permittee shall comply with the additional reporting requirements set forth in 40 C.F.R. § 264.77. At a minimum, the Permittee shall report to the Regional Administrator:
 - (a) Releases, fires, and explosions as specified in 40 C.F.R. § 264.56(j);
 - (b) Facility closures as specified in 40 C.F.R. § 264.115; and
 - (c) As otherwise required by 40 C.F.R. Part 264, Subparts F and K through N.

M. Closure and Post-Closure.

1. Performance Standard. The Permittee shall close the facility as required by 40 C.F.R. § 264.111 and in accordance with the closure plan, Attachments E.1 and E.2 to this Permit.
2. Requirement for Written Plan. In accordance with 40 C.F.R. § 264.112(a) and Module I, Condition J.9, of this permit, the Permittee shall maintain a copy of the written closure plan and post-closure plan, in the facility operating record.
3. Content of Closure Plan. The closure plan must identify the steps necessary to perform partial and/or final closure of the facility at any point during its active life. The closure plan must include all of the information required by 40 C.F.R. § 264.112(b). At a minimum, the closure plan must include the following:
 - (a) A description of how each hazardous waste management unit at the facility will be closed in accordance with 40 C.F.R. § 264.111;
 - (b) A description of how final closure of the facility will be conducted in accordance with 40 C.F.R. § 264.111. The description must identify the maximum extent of the operations which will be unclosed during the active life of the facility; and

- (c) An estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial closures and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the type(s) of the off-site hazardous waste management units to be used, if applicable; and
- (d) A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure, including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard; and
- (e) A detailed description of other activities necessary during the closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, groundwater monitoring, leachate collection, and run-on and run-off control; and
- (f) A schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule must include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and final closure.

4. Amendment to Closure Plan. The Permittee shall submit a written request for a permit modification to authorize a change in operating plans, facility design, or the approved closure plan in accordance with the procedures given at 40 C.F.R. Parts 124 and 270. The written request must include a copy of the amended closure plan for approval by the Regional Administrator.

- (a) The Permittee may submit a written request to the Regional Administrator for a permit modification to amend the closure plan at any time prior to the notification of partial or final closure of the facility.
- (b) The Permittee must submit a written request for a permit modification to authorize a change in the approved closure plan whenever:
 - (i) Changes in operating plans or facility design affect the closure plan, or
 - (ii) There is a change in the expected year of closure, if applicable, or
 - (iii) In conducting partial or final closure activities, unexpected events require a modification of the approved closure plan.
- (c) The Permittee must submit a written request for a permit modification including a copy of the amended closure plan for approval at least sixty (60) calendar days prior to the proposed change in facility design or operation, or no later than sixty (60) calendar days after an unexpected event has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the Permittee must request a permit modification no later than thirty (30) calendar days after the unexpected event.

The Regional Administrator will approve, disapprove, or modify the amended plan in accordance with the procedures in 40 C.F.R. Parts 124 and 270. The approved closure plan will become a condition of the issued RCRA permit, in accordance with 40 C.F.R. § 270.32. 40 C.F.R. § 264.112(c)(3).

- (d) If the Regional Administrator requests modifications to the plan under the conditions of 40 C.F.R. § 264.112(c)(2), the Permittee must submit the modified plan within sixty (60) calendar days of the Regional Administrator's request, or within thirty (30) calendar days if the change in facility conditions occurs during partial or final closure. 40 C.F.R. § 264.112(c)(4).

5. Notification of Partial Closure and Final Closure.

- (a) The Permittee must notify the Regional Administrator in writing at least forty-five (45) calendar days prior to the date upon which the Permittee expects to begin final closure of a facility with only treatment or storage tanks, container storage, or incinerator units to be closed.
- (b) The date when the Permittee "expects to begin closure" must be either no later than thirty (30) calendar days after the date on which any hazardous waste management unit receives the known final volume of hazardous wastes or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous waste.
- (c) If this permit is terminated, or if the Permittee is otherwise ordered, by judicial decree or final order under Section 3008 of RCRA, to cease receiving hazardous waste or to close, then the requirements of Module II, Conditions M.5(a) and (b) do not apply. However, the Permittee must still close the facility in accordance with the deadlines established in 40 C.F.R. § 264.113 and Condition M.7 of this Module.

6. Removal of Wastes and Decontamination or Dismantling of Equipment. Nothing in this permit shall preclude the Permittee from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at anytime before or after notification of partial or final closure, as required by 40 C.F.R. § 264.112(e).7. Time Allowed for Closure. After receiving the final volume of hazardous waste, the Permittee shall treat, remove from the unit or facility, or dispose of on-site, all hazardous waste and shall complete closure activities in accordance with the schedule specified in the closure plan, Attachment E.1 and the requirements of 40 C.F.R. § 264.113. The Permittee shall:

- (a) Within ninety (90) calendar days after receiving the final volume of hazardous wastes at a

hazardous waste management unit or facility, treat, remove from the unit, or dispose of on-site, all hazardous wastes in accordance with the approved closure plan; and

- (b) Complete partial and final closure activities in accordance with the approved closure plan and within one hundred and eighty (180) calendar days after receiving the final volume of hazardous wastes at the hazardous waste management unit or facility.

- 8. Disposal or Decontamination of Equipment. During all partial and final closure periods, the Permittee shall properly dispose of or decontaminate contaminated equipment, structures, and soils as required by 40 C.F.R. § 264.114 and as outlined in the closure plan, Attachment E.1, unless otherwise specified in 40 C.F.R. §§ 264.178 and 264.351. By removing any hazardous waste or hazardous constituents during partial and final closure, the Permittee may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of 40 C.F.R. Part 262.

- 9. Certification of Closure. As required by 40 C.F.R. § 264.115, within sixty (60) calendar days of completion of closure of each hazardous waste unit, and within sixty (60) calendar days of the completion of final closure, the Permittee shall submit to the Regional Administrator, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the Permittee and by an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the Regional Administrator upon request, until he releases the Permittee from the financial assurance requirements for closure under 40 C.F.R. § 264.143(i).

- N. Cost Estimate for Facility Closure. The Permittee's closure cost estimate on the effective date of this permit, prepared in accordance with 40 C.F.R. § 264.142(a), is specified in Attachment E.1, which will be up-dated annually.

- 1. The Permittee shall, within ninety (90) calendars days, provide to EPA for review, a response to the comments

concerning the closure cost estimates in Attachment E.3 and revise the current closure cost estimate to reflect the closure scenario which would be the "Worst Case Scenario" as defined below. It should be for the scenario in which:

- a. All hazardous wastes, and contaminated soils and residues must be disposed off-site as hazardous waste. No credits for reuse or recycling will be included.
 - b. All closure activities and disposal activities, including transportation from the site, must be performed by a third party contractor, and
 - c. The estimate must include third party contractor costs for labor, equipment materials and testing.
2. During the active life of the facility, the Permittee must adjust the closure cost estimate for inflation on or before March 31st of each year in accordance with the requirements of 40 C.F.R. § 264.143. The adjustment to the closure cost estimate must be made in accordance with the requirements of 40 C.F.R. § 264.142(b).
 3. The Permittee must revise the closure cost estimate no later than thirty (30) calendar days after the Regional Administrator has approved a request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised closure cost estimate must be adjusted for inflation as specified in 40 C.F.R. § 264.142(b).
 4. The Permittee must keep at the facility the latest closure cost estimate as required by 40 C.F.R. § 264.142(d) and Module I, Condition J.10, of this permit.
- O. Financial Assurance for Facility Closure. The Permittee shall demonstrate continuous compliance with 40 C.F.R. § 264.143, and/or, when applicable, with 40 C.F.R. §§ 264.145, 264.146, and 264.149, by providing documentation of financial assurance, as required by 40 C.F.R. § 264.151 or when applicable, § 264.149, in at least the amount of the cost estimates required by Module II, Condition N.

Changes in financial assurance mechanisms must be approved by the Regional Administrator pursuant to 40 C.F.R.

§ 264.143, and/or when applicable § 264.145, and/or
§ 264.149.

- P. Liability Requirements. The Permittee shall demonstrate continuous compliance with the requirements of 40 C.F.R. § 264.147 and the documentation requirements of 40 C.F.R. § 264.151, including requirements to have and maintain liability coverage for sudden accidental occurrences in the amount of at least \$1 million per occurrence with an annual aggregate of at least \$2 million, exclusive of legal defense costs.
- Q. Incapacity of Owners or Operators, Guarantors, or Financial Institutions. The Permittee shall comply with 40 C.F.R. § 264.148 whenever necessary.

MODULE III
CORRECTIVE ACTIONS AND
OTHER HSWA REQUIREMENTS

RCRA PERMIT 090613357

SMITHKLINE BEECHAM PHARMACEUTICALS CO.
GUAYAMA, P.R.

MODULE III
CORRECTIVE ACTION AND OTHER HSWA REQUIREMENTS

A. SUMMARY OF CORRECTIVE ACTION PROCESS.

Section 3004(u) of RCRA, 42 U.S.C. § 6924(u), (Section 206 of HSWA) and its corresponding regulations published in Title 40 Code of Federal Regulations (40 C.F.R.) § 264.101 require corrective action for all releases of hazardous wastes, including hazardous constituents, from any solid waste management unit ("SWMU"), regardless of when wastes were placed in the unit. The corrective action implementation process, as described under Section 3004(u), consists of a RCRA Facility Assessment ("RFA"), and if necessary, a RCRA Facility Investigation ("RFI"), a Corrective Measures Study ("CMS"), and a Corrective Measures Implementation ("CMI") phase.

The RFA is a three phase study that includes a Preliminary Review ("PR"), a Visual Site Inspection ("VSI") and a Sampling Visit ("SV"). The Preliminary Review ("PR"), which must be conducted at all treatment, storage and disposal facilities seeking a RCRA permit, is a review of all available information on the individual SWMUs. During the PR, and in subsequent phases of the RFA, all of the media (i.e., soil, groundwater, surface water, air, and subsurface gas) that could be impacted by such potential releases of hazardous waste or hazardous constituents are evaluated. Based on this review, the SWMUs are characterized as to their release potentials.

Following this review, a Visual Site Inspection ("VSI") is conducted during which all of the SWMUs, either previously or newly discovered, are observed. While performing this reconnaissance, the inspector looks for any signs of spills or leakage, stained soil, stressed vegetation, unit deterioration, or any other conditions that may be indicative of a release. By means of these observations and the findings of the PR, the reviewer may recommend sampling at those areas where releases are suspected.

The Sampling Visit ("SV") can involve any or all of the previously described media at any given SWMU. For those units where releases are clearly demonstrated in the PR and/or VSI, the SV can be eliminated leaving the unit(s) to be addressed in the RFI.

The last aspect of the RFA involves preparing the RFA report. This report includes the findings of the various RFA activities and recommendations for further action at those units with demonstrated releases of hazardous wastes, including hazardous constituents. In some cases, where an immediate threat to human health or the environment exists, interim corrective measures may be required.

If the RFA concludes that there is a need for further investigative work, the Permittee shall be required to perform a RCRA Facility Investigation ("RFI"). The purpose of the RFI is to determine the nature, extent and rate of migration of hazardous wastes, including hazardous constituents, in various media such as soils, groundwater, surface water, subsurface gas, and/or air. Based on these multimedia analyses, the types of contaminants present, the boundaries of any contamination (e.g., plumes), and the rate of contaminant movement can be determined. Once these analyses are reviewed, a RFI report is prepared that provides a summation of the data and recommendations for any needed remediation.

The next step in the corrective action process is the Corrective Measures Study ("CMS"). Initially, this study involves a comprehensive research effort aimed at determining the most environmentally beneficial corrective measure(s) for each contaminated SWMU. Once this research component of the CMS is completed, bench and pilot scale testing is performed to evaluate the field applicability of each proposed corrective measure. The results of this testing, a description of the research activities, and recommended corrective measures are presented in a CMS report submitted by the Permittee to EPA.

The culmination of the corrective action process is the Corrective Measures Implementation ("CMI") phase. In this phase, the EPA approved corrective measures recommendations of the CMS report are implemented through a permit modification.

The conditions of this Module apply to:

- (a) All the SWMUs and areas of concern (AOCs) described in this Module and the RFA Report (Attachment J); and
- (b) Any additional SWMUs or AOCs discovered during the course of groundwater monitoring, field investigations, environmental audits or other means, subsequent to the issuance of the permit.

B. SUMMARY OF RFA FINDINGS AND INFORMATIONAL REQUIREMENTS**1. RFA Results**

EPA conducted the RFA for the SK&F Guayama facility ("the Permittee"). The RFA Report is included as Attachment J to this Permit. This report is the result of a preliminary review (PR) of available information on the facility and a visual site inspection (VSI). This RFA identified the following solid waste management units and areas of concern:

- SWMU #1: Isopropyl Alcohol Recovery Column
- SWMU #2: Hazardous Waste Drum Storage Area
- SWMU #3: Process Bldg. #1--Organic and Aqueous Waste Storage Tanks (two tanks)
- SWMU #4: Process Bldg. #1--Drum Storage Area
- SWMU #5: Process Bldg. #2--Organic Waste Storage Tank (one tank)
- SWMU #6: Process Bldg. #3--Hazardous Waste Storage Tanks (four tanks)
- SWMU #7: Hazardous Waste Storage Tanks Beside Trane Incinerator #3 (four tanks)
- SWMU #8: Trane Incinerator #1
- SWMU #9: Trane Incinerator #2
- SWMU #10: Trane Incinerator #3
- SWMU #11: Wastewater Treatment Plant
- SWMU #12: Acetone Recovery Column
- SWMU #13: Caloric Fumes Incinerator
- AOC #1: Hazardous Waste Drums Stored Beside Wastewater Treatment Pilot Plant
- AOC #2: Drum Stored at North Side of Sludge Lagoon

Based on the RFA, EPA has determined the following:

(1) additional information, specified in Condition B.2 of this Module, is necessary for EPA to make a determination on whether a release of hazardous waste including hazardous constituents has occurred or is occurring for AOC #2--north side of Sludge Lagoon where drums were stored.

(2) no further action is recommended for SWMUs #1 through 13 and AOC #1 because EPA has made a present determination that there is no evidence of a release of hazardous wastes and/or hazardous constituents having occurred or is occurring from these units and areas.

2. Additional Informational Requirements

- a. Within ninety (90) calendar days from the permit effective date, the Permittee shall submit to EPA, at a minimum, the following information concerning AOC #2:
- 1) Identify all wastes ever managed at this area. Identify the drums' contents prior to disposal.
 - 2) Identify all hazardous constituents (i.e., Appendix VIII constituents), ever disposed in this area.
 - 3) Provide the dimensions of this area and the date this area was first used for waste handling.
 - 4) Provide the design of this unit. For example: run-on/run-off control, fill material, liner, and other barriers.
 - 5) Provide information concerning the management and operation of this area.
 - 6) Any other information relevant to determining whether a release of hazardous waste and/or hazardous constituents has occurred or is occurring.
- b. The Regional Administrator may require the Permittee to conduct a RFI, which addresses AOC #2 and based on the information submitted pursuant to Condition B.2.a above, in accordance with Condition C.3 of this Module.

C. STANDARD CONDITIONS

1. Failure to submit the information required in this Module, or falsification of any submitted information, is grounds for termination of this Permit (40 C.F.R. § 270.43). The Permittee shall ensure that all plans, reports, notifications, and other submissions to the Regional Administrator required in this Module are signed and certified in accordance with 40 C.F.R. § 270.11. Copies of these plans, reports, notifications or other submissions shall be submitted

to the Regional Administrator and sent by certified mail or hand delivered to:

Regional Administrator
U.S. Environmental Protection Agency, Region II
26 Federal Plaza
New York, N.Y. 10278

U.S. Environmental Protection Agency, Region II
Chief of the Hazardous Waste Facilities Branch
Air and Waste Management Division
26 Federal Plaza
New York, N.Y. 10278

U.S. Environmental Protection Agency, Region II
Permit Administration Branch
Office of Policy and Management
26 Federal Plaza
New York, N.Y. 10278

Commonwealth of Puerto Rico
Environmental Quality Board
Land Pollution Control Area
P.O. Box 11488
Santurce, Puerto Rico 00910-1488

2. All plans and schedules required by the conditions of this Module are, upon approval of the Regional Administrator, incorporated into this Module by reference and become an enforceable part of this Permit. Any noncompliance with such approved plans and schedules shall be termed noncompliance with this Permit. Extensions of the due dates for submittals may be granted by the Regional Administrator in accordance with the permit modification processes under 40 C.F.R. § 270.41, 53 Fed. Reg. 37912.
3. If the Regional Administrator determines that further actions beyond those provided in this Module, or changes to that which is stated herein, are warranted, the Regional Administrator shall modify this Module according to the permit modification processes under 40 C.F.R. § 270.41, 53 Fed. Reg. 37912.
4. All raw data, such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken pursuant to this Module, including any reissued Permits, shall be maintained at

the facility (or other location approved by the Regional Administrator) during the term of this Permit.

D. REPORTING REQUIREMENTS

1. If existing SWMUs or AOCs and/or additional SWMUs or AOCs that require corrective action are discovered subsequent to the issuance of the permit, the Permittee shall submit, to the Regional Administrator, signed bi-monthly progress reports of all activities (i.e., SWMU Assessment, Interim Measures, RFI Workplan, RFI Report, Corrective Measures Study) conducted pursuant to the provisions of this Module, beginning no later than sixty (60) calendar days after date upon which the Permit becomes effective. These reports shall contain:
 - a. A description of the work completed;
 - b. Summaries of all findings, including summaries of laboratory data;
 - c. Summaries of deviations from plans implemented;
 - d. Summaries of all contacts made with representatives of local community and public interest groups during the reporting period;
 - e. Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems; and
 - f. Projected work for the next reporting period and proposed modifications to plans.
2. Upon request, copies of other reports (e.g., inspection reports), drilling logs and laboratory data shall be made available to the Regional Administrator upon request.
3. As specified under Permit Condition C.3, as needed, the Regional Administrator may require the Permittee to conduct new or more extensive assessments, investigations, or studies, as needed, based upon information provided in the progress reports or upon other supporting information.

E. NEWLY-IDENTIFIED SOLID WASTE MANAGEMENT UNIT(S) AND
NEWLY-DISCOVERED RELEASES

1. Notification Requirements.

The Permittee shall notify the Regional Administrator in writing of any newly-identified SWMU(s) (i.e., a unit not specifically identified during the RFA), discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, no later than fifteen (15) calendar days after discovery.

2. Within forty-five (45) calendar days after notification of the discovery of newly-identified SWMU(s), the Permittee shall prepare a SWMU Assessment Plan for determining past and present operations at the unit, as well as any sampling and analysis of groundwater, land surface and subsurface strata, surface water or air, as necessary to determine whether a release of hazardous waste, including hazardous constituents, from such unit(s) has occurred, is likely to have occurred, or is likely to occur. The SWMU Assessment Plan must demonstrate that the sampling and analysis program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste, including hazardous constituents, from the newly-discovered SWMU(s) to the environment.

3. After the Permittee submits the SWMU Assessment Plan, the Regional Administrator shall either approve or disapprove of the SWMU Assessment Plan in writing.

If the Regional Administrator approves the SWMU Assessment Plan, the Permittee shall begin to implement the approved SWMU Assessment Plan within thirty (30) calendar days of receiving such written notification.

If the Regional Administrator disapproves the SWMU Assessment Plan, the Regional Administrator shall either (1) notify the Permittee in writing of the SWMU Assessment Plan's deficiencies and specify a due date for submittal of a revised SWMU Assessment Plan, or (2) revise the SWMU Assessment Plan and notify the Permittee of the revisions. This SWMU Assessment Plan, as revised by the Regional Administrator, becomes the approved SWMU Assessment Plan. The Permittee shall implement the SWMU Assessment Plan within fifteen (15) calendar days of receiving written approval.

4. The Permittee shall submit a SWMU Assessment Report to the Regional Administrator no later than thirty (30) calendar days from completion of the work specified in the approved SWMU Assessment Plan. The SWMU Assessment Report shall describe all results obtained from the implementation of the approved SWMU Assessment Plan. At a minimum, the Report shall provide the following information for each newly-identified SWMU:
 - a. The location of the newly-identified SWMU in relation to other SWMUs;
 - b. The type and function of the unit;
 - c. The general dimensions, capacities, and structural description of the unit (supply any available drawings);
 - d. The period during which the unit was operated;
 - e. The specifics on all wastes that have been or are being managed at the SWMU, to the extent available; and
 - f. The results of any sampling and analysis required for the purpose of determining whether releases of hazardous wastes, including hazardous constituents, have occurred, are occurring, or are likely to occur from the unit.
5. Based on the results of this SWMU Assessment Report, the Regional Administrator shall determine the need for further investigations at specific unit(s) covered in the SWMU Assessment. If the Regional Administrator determines that such investigations are needed, the Regional Administrator shall modify this Permit, in accordance with Condition C.3 of this Module, to address such investigations.
6. Notification Requirements For Newly discovered Releases at SWMUs

The Permittee shall notify the Regional Administrator, in writing, of any release(s) of hazardous waste, including hazardous constituents, discovered during the course of groundwater monitoring, field investigation, environmental auditing, or other activities undertaken after the commencement of the RFI, no later than fifteen (15) calendar days after discovery. Such newly-discovered releases may be from newly-identified

units, from units for which, based on the findings of the RFA, the Regional Administrator had previously determined that no further investigation was necessary, or from units investigated as part of the RFI. The Regional Administrator may require further investigation of the newly-identified release(s) through the permit modification process, in accordance with Condition C.3 of this Module.

F. INTERIM MEASURES

1. The following specific interim measures have been identified by the Regional Administrator:

[NOT APPLICABLE AT TIME OF PERMIT ISSUANCE]

2. If during the course of any activity initiated under this Module, the Regional Administrator determines that a release or potential release of hazardous waste, including hazardous constituents, from a SWMU poses a threat to human health and the environment, the Regional Administrator may specify interim measures. The Regional Administrator shall determine the specific action(s) that must be taken to implement the interim measure, including potential permit modifications and the schedule for implementing the required measures. The Regional Administrator shall notify the Permittee, in writing, of the requirement to perform such interim measures. The Regional Administrator shall modify this Module either according to procedures in Section J of this Permit, or according to the permit modification procedures under 40 C.F.R. § 270.41, 53 Fed. Reg. 37912, to incorporate such interim measures into the Permit.
3. At a minimum, the following factors shall be considered by the Regional Administrator in determining the need for interim measures:
 - a. Time required to develop and implement a final remedy;
 - b. Actual and potential exposure of human and environmental receptors;
 - c. Actual and potential contamination of drinking water supplies and sensitive ecosystems;

- d. The potential for further degradation of the medium absent interim measures;
 - e. Presence of hazardous waste in containers that may pose a threat of release;
 - f. Presence and concentration of hazardous waste, including hazardous constituents, in soils that have the potential to migrate to groundwater or surface water;
 - g. Weather conditions that may affect the current levels of contamination;
 - h. Risks of fire, explosion, or accident; and
 - i. Other situations that may pose threats to human health and the environment.
4. Financial Assurance For Interim Measures.

The Permittee must submit to EPA, within thirty (30) calendar days of the effective date of this Permit, documents establishing financial assurance for conducting the Interim Measures. The Permittee must continue to demonstrate financial assurance unless otherwise notified by EPA.

G. OTHER HSWA REQUIREMENTS

1. WASTE MINIMIZATION

- a. Pursuant to 40 C.F.R. § 264.73(b)(9), and Section 3005(h) of RCRA, 42 U.S.C. § 6925(h), the Permittee must submit to the Regional Administrator, at least annually, a waste minimization certification by the owner or operator. This certification and all accompanying documentation will be submitted on each anniversary date of the effective date of this permit.
- b. The Permittee must certify that:
 - 1) A program is in place to reduce the volume and toxicity of the hazardous waste generated to the degree determined by the Permittee to be economically practicable; and

2) The proposed method of treatment, storage, or disposal is that practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment.

2. LAND DISPOSAL RESTRICTIONS

- a. BACKGROUND. HSWA prohibits the continued land disposal of untreated restricted hazardous wastes beyond specified dates, "unless the Administrator determines that the prohibition...is not required in order to protect human health and the environment for as long as the wastes remain hazardous...." RCRA §§ 3004(d)-(g), 42 U.S.C. §§ 6924(d)-(g).

Pursuant to 40 C.F.R. § 264.13(a)(1), before an owner or operator treats, stores, or disposes of any hazardous waste, he must obtain a detailed chemical and physical analysis of a representative sample of the waste. At a minimum, this analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with the conditions of a permit issued under 40 C.F.R. Parts 270 and 124, including 40 C.F.R. Parts 264 and 268.

The Permittee shall comply with the waste analysis, notification, certification, recordkeeping, and all other applicable requirements of 40 C.F.R. Part 268 whenever generating, storing, treating, or managing a restricted waste.

- b. STORAGE OF RESTRICTED WASTES. The Permittee may store such wastes for up to one year unless the Permittee can demonstrate that such storage was solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

The Permittee may store such wastes beyond one year; however, the Permittee bears the burden of proving that such storage was solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal. 40 C.F.R. § 268.50.

The Permittee storing restricted waste for the purpose of accumulation must do so in accordance with 40 C.F.R. § 268.50(a)(2).

- c. LAND DISPOSAL OF RESTRICTED WASTES. The land disposal of restricted wastes is prohibited unless the applicable treatment standard, as set forth in Subpart D of 40 C.F.R. Part 268, is met, or the waste is exempt under 40 C.F.R. § 268.1(c).
- d. RESTRICTION DATES. The above restrictions become effective and are phased in for specific hazardous wastes over a period which began November 8, 1986. A listing of the dates in which each hazardous waste is restricted was published in the Federal Register on May 28, 1986. This permit incorporates any amendments or modifications made to the land disposal restrictions or its effective dates.

MODULE IV

CONTAINER STORAGE

RCRA PERMIT 090613357

SMITHKLINE BEECHAM PHARMACEUTICALS CO.
GUAYAMA, P.R.

MODULE IV - CONTAINER STORAGEA. UNIT IDENTIFICATION

Hazardous Waste Drum Storage Area: The Hazardous Waste Drum Storage Area is located at least 100 ft from the nearest property boundary and has a maximum capacity of 1898 sq. ft. and an actual storage area capacity of 822 sq. ft., which can store a maximum of 200 55-gallon drums (stacked 2 drums high). The storage area has a corrugated metal roof approximately 10 ft. above the ground. The containers are 55-gallon steel drums constructed of low-carbon steel that meets the U.S. Department of Transportation Specification No. 17C.

The following wastes are stored in this unit: Carbon and Celite with trace amounts of isopropyl-alcohol and Cimetidine; Carbon and Celite with trace amounts of acetone and Atenolol; Trifluoroperazine waste (ppm of fluorides); Safety equipment and clean-up material contaminated with hazardous wastes; Materials from subsidiaries stored for final disposal by incineration; and LPH phenolic solution. These wastes are classified as EPA Hazardous Waste Nos: F003 (listed for characteristic of ignitability), D002 (exhibits the characteristic of corrosivity), D003 (exhibits reactivity), and D001 (exhibits ignitability).

The drums are stored in the area on pallets to elevate the drums from contact with standing liquids and are not stacked more than 2 drums high. The floor of the unit is covered with concrete and is sloped (2% grade) toward a concrete-lined trench drain. Any drum with free liquids will be "fixed" with cement kiln dust prior to shipping off-site for disposal.

Attachment G to this Permit contains the location and details of the container storage area.

B. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

1. The Permittee may store and treat the following wastes in containers at the facility, subject to the terms of this Permit and as follows:

EPA Hazardous Waste Nos.: F003, D001, D002, D003, D007 and D008

Maximum Volume of 11000 gallons or 200 55-gallon containers

2. The Permittee is prohibited from storing or treating hazardous wastes that are not identified in Condition B.1 of this module, unless the Permittee seeks a permit modification pursuant to 40 C.F.R. § 270.41, as amended by 53 Fed. Reg. 37912.

C. CONDITION OF CONTAINERS

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee shall transfer the hazardous waste from such container to a container that is in good condition or otherwise manage the waste in compliance with the conditions of this Permit. [40 C.F.R. § 264.171]

D. COMPATIBILITY OF WASTE WITH CONTAINERS

The Permittee shall assure that the ability of the container to contain the waste is not impaired, as required by 40 C.F.R. § 264.172.

E. MANAGEMENT OF CONTAINERS

1. The Permittee shall keep all containers securely closed during storage, except when it is necessary to add or remove waste, and shall not open, handle, or store containers in a manner which may rupture the container or cause it to leak. [40 C.F.R. § 264.173]
2. The Permittee shall label all containers stored in the container storage area, in accordance with Attachment G of this permit.
3. The Permittee is prohibited from stacking the containers more than two containers high.
4.
 - a. The Permittee shall place all containers containing hazardous wastes on pallets during storage in the container storage area.
 - b. The Permittee shall use pallets between containers when containers are to be stacked.

5. The Permittee shall place containers containing ignitable wastes under a roofed area.
6. The Permittee shall maintain a minimum of three feet aisle space between rows of containers and three feet between the containers and the wall.

F. CONTAINMENT SYSTEMS

1. The Permittee shall maintain the containment system in accordance with the attached plans and specifications in Attachment G to this permit. [40 C.F.R. § 264.175]
2. The Permittee shall maintain the container storage area free of cracks and gaps.
3. The Permittee shall maintain the coating on the concrete floor and trench/sump system.
4. The Permittee shall not divert accumulated liquids from the containment system to the wastewater treatment system until the Permittee has determined that the accumulated liquids are not a hazardous waste, as defined at 40 C.F.R. Part 261 Subpart C and D or unless the WWTs consists of units which meets the definition of "tank," as defined at 40 C.F.R. § 260.10 and the discharge from the system is regulated by the Clean Water Act.

G. INSPECTION SCHEDULES AND PROCEDURES

1. The Permittee shall inspect the container area at least weekly, in accordance with the Inspection Schedule, Permit Attachment B and Condition G.3 below, to detect leaking containers and deterioration of containers and the containment system caused by corrosion and other factors. [40 C.F.R. § 264.174]
2. The Permittee shall record all observations of deterioration of the concrete secondary containment system in the inspection report and operating record and shall be maintained at the facility.
3. The Permittee shall inspect, on at least a weekly basis, the containment system for accumulated liquids.

H. RECORDKEEPING

The Permittee shall place the results of all waste analyses, inspection reports, and repair records in the facility operating record. [40 C.F.R. § 264.73]

I. CLOSURE

At closure of the container area, the Permittee shall remove all hazardous waste and hazardous waste residues from the containment system and decontaminate the container storage area in accordance with the procedures in the Closure Plan, Permit Attachment E.1 and E.2. [40 C.F.R. § 264.178]

J. SPECIAL CONTAINER PROVISIONS FOR IGNITABLE OR REACTIVE WASTE

1. The Permittee shall not locate containers holding ignitable or reactive waste within 15 meters (50 feet) of the facility's property line. [40 C.F.R. § 264.176]
2. The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste and follow the procedures specified in Permit Attachment B. [40 C.F.R. §§ 264.17(a) and 264.176]

K. SPECIAL CONTAINER PROVISIONS FOR INCOMPATIBLE WASTE

1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same container unless the procedures in Permit Attachment B are followed. [40 C.F.R. § 264.177(a)]
2. The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material. [40 C.F.R. § 264.177(b)]
3. The Permittee shall separate containers of incompatible wastes. [40 C.F.R. § 264.177(c)]

MODULE V
STORAGE IN
TANK SYSTEMS

RCRA PERMIT 090613357

SMITHKLINE BEECHAM PHARMACEUTICALS CO.
GUAYAMA, P.R.

MODULE V - STORAGE IN TANK SYSTEMSA. UNIT IDENTIFICATION

The SK&F Lab Company (SK&F) is located on a 25-acre tract of land on Puerto Rico Road #3, KM, 143, Guayama, Puerto Rico 00655. SK&F Lab Company began operation in 1978. SK&F manufactures bulk pharmaceutical products which are then transported to other SK&F facilities for packaging and distribution. The SK&F facility in Guayama manufactures Cimetidine (a peptic ulcer drug), Trifluoperazine (a tranquilizer), Hydrochlorodiazide (a diuretic); and Atenolol.

SK&F generates spent solvents, contaminated process water, still bottoms (organic residues) from solvent recovery, and off-gases produced during the process reactions. Other hazardous wastes include used incinerator bricks, ash, and spent granular activated carbon (GAC) from product filtering. These hazardous waste are stored in drums to be transported to off-site for disposal or stored in tank systems prior to being incinerated on-site.

Hazardous Waste Tank Systems:

Three 10,000-gallon above grade tanks and five 20,000-gallon above grade tanks provide storage for the generated hazardous wastes. The tanks are enclosed within reinforced concrete dikes. The tanks are equipped with man-holes, conservation vents, by-pass systems to a standby tank or sump, liquid level meter, inlet and outlet, and spare nozzles. Tank vents are connected to the odor scrubber system. Each tank is supported on an individual pad raised at least six inches from the main slab. Inlet valves are manually operated to control waste flow and prevent overfilling.

(Tanks V-408, V-430, V-436, V-450, V-451, V-452, V-453, and V-604 are the designated hazardous waste tanks subject to this permit.)

Tank V-450, V-451, V-452, and V-453 are located within the same diked area. A 34-inch concrete curb lines the perimeter of the tanks to provide a total holding capacity of at least 1.23 times the capacity of the largest tank (which is 20,000 gallons). Tank V-436 is located in a diked concrete area with a 17-inch high concrete curb which provides a total holding capacity of 1.37 times the capacity of Tank V-436 (10,000). Tanks V-408 and 430 are located in

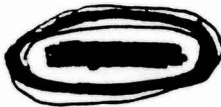

a diked concrete area with a 18-inch high concrete curb which provides a total holding capacity of at least 2.69 times of the hazardous waste tank. Tank V-604 is also located in a diked area with an 18-inch high concrete curb providing a total holding capacity of at least 2.87 times the capacity of the hazardous waste tank.

(See Attachment H for details on the tank systems and secondary containment.)

The hazardous waste stored in the tank systems are: F003, F005, and D001.

B. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

1. The Permittee may store a maximum total volume of 130,000 gallons of liquid hazardous waste in eight (8) tanks, subject to the terms of this Permit and as follows:

<u>Hazardous Tank No.</u>	<u>Maximum Capacity (Gallons)</u>	<u>Dimens. of Tank</u>	<u>Secondary Containment Required</u>	<u>Description of Waste</u>
V-450	20,000	12' (d) 24' (h)	yes-in place	Organic
V-451	20,000	12' (d) 24' (h)	yes-in place	Organic
V-452	20,000	12' (d) 24' (h)	yes-in place	 <i>Aqueous</i>
V-453	20,000	12' (d) 24' (h)	yes-in place	Aqueous
V-604	20,000	12' (d) 24' (h)	yes-in place	 Organic
V-408	10,000	12' (d) 12' (h)	yes-in place	Organic
V-430	10,000	12' (d) 12' (h)	yes-in place	Aqueous
V-436	10,000	12' (d) 12' (h)	yes-in place	Organic

2. The Permittee may store the hazardous waste identified by EPA Hazardous Waste Numbers D001, D002, F003, F005 in the tank systems.
3. The Permittee is prohibited from storing or treating hazardous wastes that are not identified in Permit Condition B.2, unless properly modified under this permit.

C. TANK ASSESSMENT AND SECONDARY CONTAINMENT [40 C.F.R. §§ 264.191 and 264.193]

1. The Permittee shall operate and maintain the secondary containment systems in accordance with Attachment H to this permit and 40 C.F.R. § 264.193(b)-(f).
2. The Permittee shall maintain the secondary containment systems free of cracks and gaps. Observation of cracks and gaps in the secondary containment system and a description of repairs implemented must be recorded in the inspection form.
 - a. If the Permittee observed cracks or gaps in the secondary containment system in the implementation of Condition F.3 of this module, the Permittee shall determine whether raveling, subsidence, and/or sinkhole formation is the cause of the deterioration. This written determination shall include the criteria and rationale for the determination and shall be included in the operating record.
 - b. If the cause of the deterioration of the secondary containment system is determined to be from raveling, subsidence, and/or sinkhole development, the Permittee shall verbally notify EPA within five (5) calendar days from the day of such determination and submit a written proposal, within 5 calendar days from the day of verbal notification, of actions to be taken to avoid the release of hazardous waste and/or hazardous constituents to the subsurface.
3. The Permittee shall conduct, at a minimum, one of the following:
 - a. The Permittee shall provide documentation, to EPA for review and approval, showing that each hazardous waste tank system have secondary

containment system which meets the requirements of 40 C.F.R. § 264.193 and 53 Fed. Reg. 34084;

- b. Within 90 calendar days, the Permittee shall submit to EPA for review and approval, the results of the most recent leak test, internal inspection, or other tank integrity examination meeting the requirements of 40 C.F.R. § 264.191(b)(5) and specific procedures and schedule to meet the requirements of 40 C.F.R. § 264.193 and 53 Fed. Reg. 34084; or

- c. The Permittee shall comply with the following tank system assessment condition until such time as the concrete secondary containment for each tank system meets the requirement of 40 C.F.R. § 264.193:

Within ninety (90) calendar days from the effective date of this Permit, the Permittee shall submit to EPA the following:

- i. Specific procedures planned to conduct, at least annually, a leak test, internal inspection or other tank integrity examination in accordance with the requirements of 40 C.F.R. § 264.191(b)(5); or
- ii. Develop a schedule and procedure for an assessment of the overall condition of the tank system by an independent, qualified registered professional engineer. The schedule and procedure must be adequate to detect obvious cracks, leaks, and corrosion or erosion that may lead to cracks and leaks. The Permittee must remove the stored waste from the tank, if necessary, to allow the condition of all internal tank surfaces to be assessed. The frequency of these assessments must be based on the material of construction of the tank and its ancillary equipment, the age of the system, the type of corrosion or erosion protection used, the rate of corrosion or erosion observed during the previous inspection, and the characteristics of the waste being stored or treated. 40 C.F.R. § 264.193(i)(2).

[Note: The practices described in the American Petroleum Institute (API) Publication Guide for Inspection of Refinery Equipment, Chapter XIII, "Atmospheric and Low-Pressure Storage Tanks," 4th edition, 1981, may be used, where applicable, and

approved by EPA, as guidelines for assessing the overall condition of the tank system.]

4. The Permittee shall comply with the following condition until such time as the ancillary equipment associated with the respective hazardous waste tank systems has been deemed by EPA to meet the secondary containment requirement of 40 C.F.R. § 264.193:
 - a. Within ninety (90) calendar days from the effective date of this Permit, the Permittee shall submit to EPA the procedures to conduct, at least annually, a leak test that meets the requirements of 40 C.F.R. § 264.191(b)(5) or other tank integrity method. 40 C.F.R. § 264.193(i)(3).
 - b. Upon EPA approval, the Permittee shall conduct the procedures developed pursuant to Condition C.4.a, within one year of the effective date of this Permit.
5. The Permittee must maintain on file at the facility a record of the results of the assessments conducted pursuant to Condition C.3 and C.4 above. The written assessments must be reviewed and certified by an independent, qualified registered professional engineer, in accordance with 40 C.F.R. § 270.11(d).
6. If a tank system or component is found to be leaking or unfit for use as a result of the leak test or assessment conducted pursuant to Condition C.3 and C.4, the Permittee must comply with the requirements of 40 C.F.R. § 264.196. 40 C.F.R. § 264.193(i)(4).

D. OPERATING REQUIREMENTS

1. The Permittee shall not place hazardous wastes or treatment reagents in the tank systems if they could cause the tank, its ancillary equipment, or a containment system to rupture, leak, corrode, or otherwise fail. 40 C.F.R. § 264.194(a).
2. The Permittee shall prevent spills and overflows from the tank or containment systems using the methods described in Attachment H of this permit. 40 C.F.R. § 264.194(b).

E. RESPONSE TO LEAKS OR SPILLS

In the event of a leak or a spill from the tank system, from a secondary containment system, or if either system becomes unfit for continued use, the Permittee shall remove the system from service immediately and satisfy the requirements of 40 C.F.R. § 264.196(a) through (f) and perform the following:

1. Immediately stop the flow of hazardous waste into the system and inspect the system to determine the cause of the release.
2. Remove waste and accumulated precipitation from the system within 24 hours of the detection of the leak to prevent further release and to allow inspection and repair of the system. If the Permittee finds that it will be impossible to meet this time period, the Permittee shall notify the Regional Administrator and demonstrate that the longer time period is required. If the collected material is a RCRA hazardous waste, it must be managed in accordance with all applicable requirements of 40 C.F.R. Parts 262-264 and 268. The Permittee shall note that if the collected material is discharged through a point source to U.S. waters or to a POTW, it is subject to requirements of the Clean Water Act. If the collected material is released to the environment, it may be subject to reporting under 40 C.F.R. Part 302.
3. Contain visible releases to the environment. The Permittee shall immediately conduct a visual inspection of all releases to the environment and based on that inspection: (1) prevent further migration of the leak or spill to soils or surface water and (2) remove and properly dispose of any visible contamination of the soil or surface water. All releases will be subject to reporting under 40 C.F.R. Part 302. The Permittee shall comply with all notification and reporting requirements set forth in 40 C.F.R. § 264.196(d).
4. Close the system in accordance with the Closure Plan, Attachment E of this permit and the closure/post-closure care requirements of this Module, unless the following actions are taken:
 - (a) For a release caused by a spill that has not damaged the integrity of the system, the Permittee shall remove the released waste and make any

necessary repairs before returning the tank system to service.

- (b) For a release caused by a leak from the primary tank system to the secondary containment system, the Permittee shall repair the primary system prior to returning it to service.
 - (c) For a release to the environment caused by a leak from the aboveground portion of the tank system or ancillary equipment that does not have secondary containment and can be visually inspected, the Permittee shall repair the tank system (and/or ancillary equipment before returning it to service).
 - (d) For a release to the environment caused by a leak from the portion of the tank system component that is not readily available for visual inspection, the Permittee shall provide secondary containment that meets the requirements of 40 C.F.R. § 264.193 before the component can be returned to service.
 - (e) If the Permittee replaces a component of the tank system to eliminate the leak, that component must satisfy the requirements for new tank systems or components in 40 C.F.R. §§ 264.192 and 264.193.
5. For all major repairs to eliminate leaks or restore the integrity of the tank system, the Permittee must obtain a certification by an independent, qualified, registered professional engineer that the repaired system is capable of handling hazardous wastes without release for the intended life of the system before returning the system to service. Examples of major repairs are: installation of an internal liner, repair of a ruptured tank, or repair or replacement of a secondary containment vault. This certification must be submitted to the Regional Administrator within seven (7) days after returning the tank to use. 40 C.F.R. § 264.197(f).

F. INSPECTION SCHEDULES AND PROCEDURES

1. The Permittee shall inspect the tank systems, in accordance with the Inspection Schedule, Permit Attachment B, and shall comply with Condition F.2 and F.3 of this Module.

2. The Permittee shall inspect the overfill controls, in accordance with the schedule in Permit Attachment B. 40 C.F.R. § 264.195(a).
3. The Permittee shall inspect the following components of the tank system at least once each operating day: [40 C.F.R. § 264.195(b)]
 - (a) Aboveground portions of the tank system (which include piping, flanges, and fittings) to detect corrosion or releases of waste;
 - (b) Data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design;
 - (c) Construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation);
 - (d) Conservation vents for obstruction, corrosion, and proper functioning;
 - (e) The secondary containment coating, when applied, for wear, deterioration, and coverage; and
 - (f) Accumulated liquids in the containment system.
4. The Permittee shall document compliance with the above inspection requirements and place this documentation in the operating record for the facility. 40 C.F.R. § 264.195(d).

G. NOTIFICATIONS AND REPORTING

1. The Permittee shall report to the Regional Administrator, within 24 hours of detection, any release to the environment. 40 C.F.R. § 264.196(d)(1). However, a leak or spill of one pound or less of hazardous waste, that is immediately contained and cleaned up, need not be reported. 40 C.F.R. § 264.196(d)(2). If the Permittee has reported the release pursuant to 40 C.F.R. Part 302, this report satisfies the requirements of this Permit Condition. 40 C.F.R. § 264.196(d)(1).

2. Within thirty (30) calendar days of detecting a release to the environment from the tank system or secondary containment system, the Permittee shall report the following information to the Regional Administrator: [40 C.F.R. § 264.196(d)(3)]
 - a. Likely route of migration of the release;
 - b. Characteristics of the surrounding soil (including soil composition, geology, hydrogeology, and climate);
 - c. Results of any monitoring or sampling conducted in connection with the release. If sampling and monitoring data relating to the release are not available within 30 days, the Permittee should provide the Regional Administrator with a schedule of when the results will be available. This schedule must be provided before the required 30-day submittal period expires;
 - d. Proximity to downgradient drinking water, surface water, and populated areas; and
 - e. Description of response actions taken or planned.
3. Pursuant to Condition C.2.b of this module, the Permittee shall submit a written notification to the Regional Administrator within seven days from the day which the Permittee determines that deterioration of the secondary containment system is caused by raveling, subsidence, and/or sinkhole development. This notification shall include proposed actions to be taken to avoid a release of hazardous waste and hazardous constituents to the subsurface.

H. CLEAN CLOSURE AND/OR CLOSURE WITH POST-CLOSURE CARE

1. At closure of the tank system(s), the Permittee shall follow the procedures in the Closure Plan, Permit Attachment E, including all the requirements of 40 C.F.R. § 264.197. 40 C.F.R. § 264.197(a).
2. If the Permittee demonstrates that not all contaminated soils can be practically removed or decontaminated, in accordance with the Closure Plan, then the Permittee shall submit a revised Closure Plan and a Contingent Post-Closure Plan for the contaminated area. The permit will be modified for the new plans. 40 C.F.R. § 264.197(b) and (c). The Permittee shall update the

cost estimates for closure and post-closure plans, and the financial assurance demonstration when the closure and/or post-closure plans are modified.

I. SPECIAL TANK PROVISIONS FOR IGNITABLE OR REACTIVE WASTES

1. The Permittee shall not place ignitable or reactive waste in the tank system or in the secondary containment system, unless the procedures specified in Permit Attachment B and 40 C.F.R. § 264.198 are followed.
2. The Permittee shall comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon, as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code" (1977 or 1981). 40 C.F.R. § 264.198(b).

J. SPECIAL TANK PROVISIONS FOR INCOMPATIBLE WASTES

1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same tank system or the same secondary containment system. 40 C.F.R. § 264.199(a).
2. The Permittee shall not place hazardous wastes in a tank system that has not been decontaminated and that previously held an incompatible waste or material. 40 C.F.R. § 264.199(b).